

INTEGRATED CIRCUIT AND RELATED IMPROVEMENTS

ABSTRACT

5 An improved integrated circuit and a related system apparatus and method.
The integrated circuit includes a plurality of logic area or user logic areas; and an
actively switchable network capable of selectively connecting at least one logic area
with another logic area. In particular, the plurality of logic areas include an array of
logic-gates or logic-blocks or custom logic which form functional blocks. The
10 integrated circuit can provide a chip-architecture where the functional blocks are
specific hardware functional blocks, hardware functional blocks that are
parameterized, and/or programmable functional blocks including programmable
processors. Also, the functional blocks can act as objects requesting and providing
services to other objects on the actively switchable network so that, when a functional
15 block is a programmable processor, the functional block optionally implements
objects, with the programmable processor making one, some or all objects thereof
visible to other objects connected to the actively switchable network.

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